

Apparatus and methods for monitoring the presence of an analyte in a closed vial wherein a sample contained within the closed vial is conveyed to an analyzer. The analyzer determines a value of a spectral property dependent on analyte concentration at a position within a headspace formed above the sample within the vial. An indicator is used to compare the measured value of the spectral property with a predetermined limit criteria to determine the presence or absence of the analyte. Vials wherein the presence of the analyte is detected are indicated as product vials whereas vials wherein the absence of the analyte is detected are indicated as rejected vials. The rejected vials are conveyed by a transferrer to a rejected vial station. A first portion of the product vials are conveyed by a sampler to a sample collection station. A second portion of the product vials are conveyed to a labeler.